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February 26, 2008

Ms. Victoria J. Rutson Chief, Section of Environmental Analysis Surface Transportation Board 395 E Street, S.W. Room 1106 Washington, D.C. 20423

Re:

Finance Docket No. 34658, <u>The Alaska Railroad Corp. -- Petition For Exemption From 49 U.S.C. §10901 To Construct and Operate a Rail Line Between North Pole</u>, Alaska and Delta Junction

Dear Ms. Rutson:

On behalf of the Alaska Railroad Corporation (ARRC), enclosed please find a Voluntary Mitigation Development Plan in connection with the above-referenced proceeding.

Please let me know if you have any questions.

Sincerely,

Kathryn Kusske Floyd

Enclosure

cc: David C. Navecky, SEA
Alan Summerville, ICF
Eileen Reilly, ARRC (w/o encl.)
Brian Lindamood, ARRC (w/o encl.)



Alaska Railroad Corporation Northern Rail Extension Project

Voluntary Mitigation Development

Prepared by: HDR Prepared for: ARRC

01/17/08

Revision 1c STB Finance Docket Number: 34658 Document Control Number: 06-0100-004

> Alaska Railroad Corporation 327 West Ship Creek Avenue Anchorage, AK 99501



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1.0 Introduction

Since the announcement of the Northern Rail Extension (NRE) project in 2005, the Alaska Railroad Corporation (ARRC) has been actively undertaking to work with the local communities and interested agencies to learn about concerns they have about the project. Based on those consultations, ARRC has worked with a team of technical specialists from various disciplines to develop voluntary mitigation that should address many of the concerns that have been raised. By way of this submission, ARRC would like to offer its voluntary mitigation development to the Surface Transportation Board's Section of Environmental Analysis (SEA) for consideration as part of the ongoing environmental process under the National Environmental Policy Act (NEPA).

Specifically, this submission is designed to offer a series of voluntary mitigation measures to address potential impacts from construction and operation of the NRE. This document presents a range of issues organized by resource categories. The measures identified, in many instances, are ones that have proven successful in mitigating environmental effects for past ARRC projects in other locations. ARRC believes the measures being offered are reasonable, practicable and make sense in the context of the NRE project area. It is ARRC's preference to focus its mitigation efforts in the immediate project area where such measures may offset potential impacts most directly. As the NEPA process continues and permitting documents for the NRE project are developed, it is possible that additional mitigation may become identified and added to the measures identified below.



2.0 Project Area Overview

Broadly defined, the Northern Rail Extension project corridor is located in the East Tanana Valley Basin of Interior Alaska, roughly paralleling the Tanana River from a point on the existing ARRC Eielson Branch near North Pole to the vicinity of Delta Junction. The Tanana Valley lies between two mountain ranges: The Alaska Range to the southwest and the White Mountains to the north. Rugged upland features extend to the east bank of the Tanana River from south of Flag Hill to the confluence of the Tanana and Delta rivers. South and west of the Tanana River, the basin is composed of sloping sedimentary plains that extend to the foothills of the Alaska Range. Throughout the project area, the Tanana River is characterized as a wide-braided or semi-braided stream. The corridor also includes the relatively clear water Salcha River, flowing out of the Yukon Tanana Uplands, and the glacial-fed Little Delta and Delta Rivers and Delta Creek, all originating in the Alaska Range.

The project would traverse both developed and undeveloped terrain. Generally, the areas to the north and east of the Tanana and Delta Rivers are developed, with primary access via the Richardson Highway. Areas to the south of the Tanana River are accessible only by ice bridge during the winter months or by helicopter or small boat during the five- to six-month summer season. The undeveloped area includes military training ranges, scattered private cabins, recreational areas, and the Whitestone agricultural community. The existing Trans-Alaska Pipeline System parallels the project corridor to the east.



3.0 Natural and Biological Resources

The ARRC conducted a constraints analysis in developing its preferred alignment, and, to the extent possible, identified a route that would avoid or minimize impacts to the waterbodies, anadromous fish streams, high value wetland complexes (based on National Wetlands Inventory mapping).

3.1 Wetlands/Water Resources

The project will cross wetland areas along the Tanana River, Little Delta River, Delta Creek, Delta River, and potentially other streams. Impacts to wetlands may include removal of vegetation and placement of fill, and may affect the wetland hydrology. In addition, construction of a raised barrier through wetlands may disrupt surface and subsurface water movement, although mitigation measures would be implemented to minimize this potential impact.

The Tanana River flows through the preferred alignment corridor, as do Delta Creek, the Delta and Little Delta rivers. Pile Driver Slough and Twenty-three-Mile Slough are also important water bodies within the project area. The Northern Rail Extension Project could affect water quality by increasing turbidity and suspended sediments during construction, changing local water balances and water quality through construction water demands, use of river channels or floodplains as material sites, introducing thermal erosion and degrading streambanks and modifying groundwater recharge patterns. Potential mitigation measures include the following.

- The ARRC would obtain all Federal permits, including the Clean Water Act Section 404 permit, required by the U.S. Army Corps of Engineers (USACE) for project-related encroachment of jurisdictional waters of the U.S., including wetlands, prior to initiation of construction in these areas. Permit stipulations would be incorporated into the construction contract specifications.
- The ARRC would obtain coverage from Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges from Construction Activities. A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented.
- To minimize sedimentation into streams and waterways during construction, the ARRC would employ best management practices (BMPs) as specified in the SWPPP.
- To compensate for unavoidable impacts to jurisdictional wetlands, the ARRC would implement compensatory mitigation negotiated as part of the USACE Section 404 permit for placement of fill in wetlands.
- The ARRC would obtain necessary State permits and authorizations (e.g., Alaska Department of Natural Resources (ADNR) Fish Habitat Permit, and ADNR Land Use Permit). Permit stipulations would be incorporated into the construction contract specifications.
- For the portions of the project within the Fairbanks North Star Borough (FNSB), the ARRC would coordinate with the local FNSB Floodplain Administrator to ensure that new project-related stream and floodplain crossings are appropriately designed. For crossings within the mapped 100-year flood plain, the ARRC would design drainage crossing structures to pass a 100-year flood.
- The ARRC intends to design and maintain bridges and culverts to maintain existing water patterns and flow conditions as practicable.
- ARRC would use contaminant-free embankment and surface materials in construction.



- The ARRC would disturb the smallest area practicable around any streams and would conduct reseeding efforts to promote revegetation of disturbed areas as soon as practicable following project-related construction activities. Disturbed areas, except for the railroad embankment, would be reseeded with native vegetation to provide permanent stabilization and minimize the potential for erosion.
- The ARRC would design and construct culverts used for new fish-stream crossings with a width greater than or equal to 125 percent of the width of the stream at the ordinary high water stage. The culvert grade would approximate the surrounding slope of the stream channel. Whenever possible, new culverts would be buried to approximately 40 percent of their diameter with substrate material that would remain stable at expected flood discharge rates. This would not apply to any water crossing greater than 15-feet in bank-to-bank width due to span length limitations.
- When project-related construction activities, such as culvert and bridgework, require work in streambeds, the ARRC would conduct these activities, to the extent practicable, during lowflow conditions.
- During construction, temporary barricades, fencing, and/or flagging would be used in sensitive habitats to contain project-related impacts to the construction area. Staging areas would be located in previously disturbed sites to the extent practicable and not in sensitive habitat areas.
- During construction, project-related construction vehicles would be directed to avoid driving in or crossing streams at other than established crossing points.
- Areas disturbed during construction would be returned to their preconstruction contours to the extent practicable, and reseeded or replanted within one growing season following construction to stabilize the banks. Seed mixtures would not contain known invasive plant species.
- The ARRC would design and construct the new rail line in such a way as to maintain natural water flow and drainage patterns to the extent practicable. This would include placing equalization culverts through the embankment as necessary to maintain existing drainage patterns, prevent impoundment of water or excessive drainage, and maintain the connectivity of floodplains and wetlands.
- During construction, the ARRC would install appropriate BMPs within its parallel drainage ditches that are within 1,000 feet of perennial waters to provide stormwater retention and filtration. ARRC would maintain drainage ditches as necessary (e.g., by removing accumulated sediments to maintain storm water retention capacity and function).
- Temporary stream crossings would be placed across waterways during construction to provide access for contractors, work crews, and heavy equipment. Temporary stream crossings are generally expected to be needed for one year or less. Minimum standards and specifications would be established for typical crossings to minimize damaging the waterway, blocking fish passage, and generating sediment.
- Temporary structures would avoid overly constricting active channels and would be placed in service for the shortest time possible.



3.2 Fisheries

The project corridor includes rivers and streams considered Essential Fish Habitat by the National Marine Fisheries Service (NMFS), as well as many clear water streams and sloughs and associated lakes and ponds. Those along the south side of the Tanana River between Little Delta River and Delta River are considered important fish habitat, as are natural upwellings at the confluence of the Tanana River and Delta River that remain open during the winter.

- The ARRC would obtain necessary State permits and authorizations (e.g., Alaska Department of Natural Resources (ADNR) Fish Habitat Permit). Permit stipulations would be incorporated into the construction contract specifications.
- The ARRC would implement EFH conservation measures as agreed upon with NMFS during the EFH consultation process.
- When project-related construction activities, such as culvert and bridgework, require work in streambeds, the ARRC would conduct these activities, to the extent practicable, during lowflow conditions.
- Construction in anadromous streams would be timed where practicable to minimize adverse effects to salmon during critical life stages whenever possible. Timing windows, as specified by ADNR's Office of Habitat Management and Permitting, would be incorporated into construction contract specifications for in-stream work.
- The ARRC would design and construct stream crossings that do not impede fish passage or impair the hydrologic functioning of the waterbody.

3.3 Birds

Many migratory birds use the corridor for nesting and staging. Rusty blackbirds, which occur in the area, are a State-listed species of special concern. Raptor nest surveys found bald and golden eagle and other raptor nests within the project corridor; Bald and Golden eagles are protected under Bald and Golden Eagle Protection Act and other bird species are protected under the Migratory Bird Treaty Act. Potential direct effects are primarily related to noise effects during construction, removal of individual nest trees during construction, and permanent removal of habitat within the project footprint.

- Clearing of vegetation in preparation for construction would occur before or after the typical migratory bird nesting season as identified by the U.S. Fish and Wildlife Service (USFWS) (typically May 1 to July 15) to the extent possible to ensure compliance with the Migratory Bird Treaty Act. If clearing is required during the nesting season, a nest survey would be conducted and the USFWS would be consulted, as necessary, to identify additional compliance measures. This would also mitigate potential impacts to moose and many other mammals, as it encompasses the most sensitive time when young are born.
- During the bald eagle nesting season (typically March through August), ARRC and its contractor(s) would use their best efforts to avoid bald eagle disturbance during construction. Active nest trees would be protected by vegetative buffer zones in accordance with USFWS guidelines.



3.4 Moose

The Alaska Department of Fish and Game (ADF&G) has identified winter moose habitat and prime moose calving habitat in an area west of the Tanana River and north of Flag Hill. A Cooperative Agreement between the ARRC and the ADF&G in 1991 developed measures in an attempt to minimize moose kills. Implementation of these measures over the past 15 years has allowed the ARRC and ADF&G to monitor effectiveness of particular measures.

- The ARRC would work with adjacent land managers to develop alternative preferred habitat located away from the proposed rail line, crating suitable browse in an area that moves moose away from the railroad right-of-way (ROW).
- ARRC would construct a widened embankment to allow moose a place to retreat on one side when a train passes to reduce the potential for moose strikes.



4.0 Land Use

The project area contains lands on both Fort Wainwright and Fort Greely military reservations. These areas are used by the military for aerial and on-the-ground training exercises. Construction and operation of the proposed rail extension will need to be coordinated with proposed training exercises and future plans for military facilities.

The preferred alignment corridor traverses the Delta and Eielson farming communities, two of Alaska's few agricultural areas. Farming activities include livestock and cropland. The alignment is also within the floodplains of a number of major river systems.

The ARRC has an established history of acquiring a 200-foot on-center ROW for rail operations, except as limited by topography or land ownership. Additional ROW is likely to be needed for ancillary facilities, such as material sources and construction staging areas. The project would require the acquisition of ROW along the route and would involve take of or effects to individual properties. In some cases, relocation may be required. There may also be properties within the ROW where improvements may have been constructed that are not covered under Alaska or federal regulations (such as unauthorized cabins on public lands).

4.1 Community Outreach

The ARRC held a series of meetings with communities and community organizations within the project area during the course of the Northern Rail Extension planning process. Community outreach and regular communication will continue to be important during construction.

- Prior to initiation of construction activities related to this project, and for a period of one year following start-up of operations on the new rail line, ARRC would establish a Community Liaison to consult with affected communities, businesses, and agencies; develop cooperative solutions to local concerns; be available for public meetings; and conduct periodic public outreach. ARRC would provide the name and phone number of the Community Liaison to mayors and other appropriate local officials in each community through which the new rail line passes.
- ARRC would continue its ongoing community outreach efforts by maintaining a Web site about the project throughout the period of construction of the new line.

4.2 Residential

- Project-related construction vehicles, equipment, and workers would not access work areas by crossing residential properties without the permission of the property owners.
- Public land areas that are directly disturbed by project-related construction and are not owned by the ARRC (such as temporary access roads, haul roads, and crane pads) would be restored to their original condition, as may be reasonable and practicable, upon completion of construction.
- In the unlikely event of any inadvertent damage, ARRC would work with affected landowners to appropriately redress any damage to each landowner's property caused by project-related construction activities.
- Concerns about fragmentation of neighborhoods and farm properties would be addressed by maintaining the connectivity of major roadways, and working with local residents on specific right-of-way acquisition issues.



4.3 Business and Agricultural

- Project-related construction vehicles, equipment, and workers would not access work areas by crossing business or agricultural areas, including parking areas or driveways, without advance notice to the owner.
- In business and industrial areas, project-related equipment and materials would be stored in established storage areas or on ARRC property. Parking of equipment or vehicles, or storage of materials along driveways or in parking lots, is prohibited unless agreed to by the property owner.
- ARRC would work with affected businesses or farms to appropriately address project related construction activity issues affecting any business or farm.
- To the extent practicable, ARRC would ensure that entrances and exits for businesses are not obstructed by project-related construction activities, except as required to move equipment.
- Fencing would be considered on a case-by-case basis for agricultural areas.

4.4 Utility Corridors

- The ARRC would make reasonable efforts to identify all utilities that are reasonably expected to be materially affected by the proposed construction within the ROW or that cross the ROW. ARRC would consult with utility owners during design and construction so that utilities are protected during project-related construction activities. ARRC would notify the owner of each such utility identified prior to project-related construction activities and would coordinate with the owner to minimize damage to utilities.
- The ARRC would make reasonable efforts to minimize the utility disruptions by timing construction work and outages to low use time periods. The ARRC would notify residents and other utility customers in advance of construction activities requiring temporary service interruptions.



5.0 Transportation

The existing regional transportation system between Fairbanks and Delta Junction consists primarily of the Richardson Highway. Secondary paved and gravel roads are located within areas of development adjacent to the highway; other transportation options in the preferred alignment corridor include boats, off-road vehicles, and private air services.

The proposed rail extension will cross water bodies considered navigable that are regulated by the U.S. Coast Guard under the authority of Section 9 of the Rivers and Harbors Act of 1899 and the General Bridge Act of 1946. The Coast Guard reviews projects crossing navigable water to determine if the project meets the reasonable needs of current and future navigation.

Recreation activities in the corridor include recreational hunting, boating, fishing, hiking, snowmachining, dog mushing, and other summer and winter activities. The proposed alignment may cross established and informal summer and winter trails, including existing dog mushing, off-road vehicle, and pedestrian trails.

Subsistence activities in the vicinity include hunting, trapping, fishing, and gathering berries.

5.1 Safety

- The ARRC would construct grade-separated crossings of the Richardson Highway.
- The ARRC would consult with appropriate State and local transportation agencies to determine the final design and other details of grade-crossing warning devices.
- ARRC would establish a Diagnostic Team comprised of ARRC staff, community members, ADOT&PF, and others to apply Federal and State regulations regarding roadway/railroad crossings. This process will result in appropriate safety measures for every roadway/railroad crossing.
- During construction of tracks across existing roads, road users would be notified of temporary road closings and other construction-related activities. The ARRC would provide for detours and associated signage, as appropriate, or maintain at least one open lane of traffic at all times to allow for the quick passage of emergency and other vehicles. Signs providing the name, address, and telephone number of a contact person would be displayed on-site to assist the public in obtaining immediate responses to questions and concerns about project activities.
- To the extent practicable, the ARRC would confine all project-related construction traffic to project specific roads within the ROW or established public roads. Where traffic cannot be confined to these roads, ARRC would make necessary arrangements with landowners to gain access. Any temporary access roads constructed outside the rail line ROW would be removed and restored upon completion of construction unless otherwise agreed to with the landowners.
- ARRC would coordinate with Alaska Command (ALCOM) and Bureau of Land Management (BLM) personnel, as appropriate, regarding activities occurring within military base and training areas.

5.2 Navigation

The ARRC would obtain a Section 9 Bridge Permit from the U.S. Coast Guard for construction of bridges over navigable rivers (e.g., Tanana, Little Delta, and Delta rivers and



- Delta Creek). Permit stipulations would be incorporated into the construction contract specifications.
- The ARRC would coordinate with the U.S. Coast Guard to provide adequate clearances for navigation of recreational boats on navigable rivers.

5.3 Access and Recreation

- Depending on the alignment selected, during construction of the crossings over navigable rivers, some short-term temporary restrictions of watercraft traffic could occur for safety purposes. The ARRC would install warning devices to notify boaters of project-related bridge construction activities. Signs providing the name, address, and telephone of a contact person would be displayed on-site to assist waterway users in obtaining immediate responses to questions and concerns about project activities.
- Public access would be maintained to and from legally authorized trails and FNSB recognized trail easements. The ARRC would work with trail user groups to design and construct trail crossings.



6.0 Cultural Resources

The corridor along the preferred alignment was used historically as a transportation corridor by prehistoric and historic Native peoples, as well as by Euro-American settlers, miners, and trappers.

- The ARRC would develop a Programmatic Agreement (PA) with the Alaska State Historic Preservation Office (SHPO) governing the identification and treatment of cultural resources. The PA would detail procedures and methodologies for identification of resources, reporting, reviewing, and implementing appropriate treatment measures for any cultural resources found within the project area. The PA would identify appropriate actions should previously undiscovered archaeological or cultural resource sites be unearthed during construction activities.
- ARRC would develop protocols to inform and prepare construction supervisors of the importance of protecting archaeological resources, graves, and other cultural resources and how to recognize and treat the resources.



7.0 Geology/Soils

- The ARRC would design project facilities in accordance with engineering criteria relating to permafrost, seismic events, and other geologic hazards.
- The ARRC would limit ground disturbance to only the areas necessary for project-related construction activities.
- During earthmoving activities, the ARRC would reuse topsoil wherever practicable. The ARRC would also stockpile topsoil for later application during reclamation of disturbed areas along the ROW. The ARRC would use appropriate erosion control measures to minimize the potential for erosion of stockpiles until their removal and the area restored.
- The ARRC would restore disturbed areas as soon as practicable after construction ends along a particular stretch of rail line. The goal of restoration would be the rapid and permanent reestablishment of native ground cover on disturbed areas. If weather or season precludes the prompt reestablishment of vegetation, the ARRC would use temporary erosion control measures as specified in the stormwater management plan (SWPPP).
- The ARRC would, to the extent practicable, revegetate the bottom and sides of the drainage ditches using natural recruitment from the native seed sources in the stockpiled topsoil or a seed mix free of invasive plant species.

7.1 Seismic

The project would be designed and take into account the region's potential for earthquake activity to mitigate potential damage to bridges and tracks. Separated grade crossings would be designed in accordance with the latest applicable seismic codes.



8.0 Other

8.1 Air Quality

- To minimize fugitive dust emissions created during project-related construction activities, the ARRC would implement appropriate fugitive dust suppression controls, such as spraying water or other approved measures. The ARRC would also operate water trucks on haul roads as necessary to reduce dust.
- The ARRC would work with its contractor(s) to make sure that construction equipment is properly maintained and that mufflers and other required pollution-control devices are in working condition in order to limit construction-related air emissions.

8.2 Noise and Vibration

The ARRC would work with its construction contractor(s) to minimize, to the extent practicable, construction-related noise disturbances near residential areas. Construction and maintenance vehicles would be in good working order with properly functioning mufflers to control noise.

8.3 Hazardous Materials/Potential Spills

- Prior to initiating any project-related construction activities, ARRC or its contractor(s) would develop a spill prevention plan for petroleum products or other hazardous materials during construction activities as required by state and federal regulations. The plan would include a requirement to conduct weekly inspections of equipment for any fuel, lube oil, hydraulic, or antifreeze leaks. If leaks are found, ARRC would require the contractor(s) to immediately remove the equipment from service and repair or replace it.
- Standard spill-prevention measures would be implemented during construction and spill clean-up equipment (e.g., oil-absorbent pads) would be available onsite.
- ARRC would require contractor(s) to dispose of waste generated during project-related construction activities in accordance with applicable Federal, State, and local regulations.
- The ARRC would incorporate the new rail line into the existing ARRC Emergency Response process and would update its Oil Spill Contingency Plan to include the new rail line.
- In accordance with the ARRC's Oil Spill Contingency Plan, updated as required, the ARRC would make the required notifications to the appropriate Federal and State environmental agencies in the event of a reportable hazardous materials release. The ARRC would work with the appropriate agencies such as the Alaska Department of Environmental Conservation (ADEC), EPA and USFWS to respond to and remediate releases with the potential to affect sensitive habitats such as wetlands.
- The ARRC would continue its ongoing efforts with community officials to identify the public emergency response teams located in the project area and would provide, upon request, hazardous material training.



8.4 Emergency Response

- At least one month prior to initiation of construction activities in the area, the ARRC would provide the information described below regarding project-related construction of the new rail line, as well as any additional information, as appropriate, to fire departments within the project area, FEMA, FNSB Emergency Operations Department and the Delta Greely Local Emergency Planning Committee.
 - The schedule for construction throughout the project area, including the sequence of construction of public grade crossings and approximate schedule for these activities at each crossing.
 - A number for the ARRC's contact, who would be available to answer questions or attend meetings for the purpose of informing emergency-service providers about the project construction and operation.
 - Revisions to this information, including changes in construction schedule, as appropriate.
- Before the start of operations, the ARRC would contact the appropriate departments and agencies to provide them with information concerning the proposed operations to allow the departments and agencies to incorporate the information into local response plans.
- For each of the public grade crossings on the new and existing rail line, the ARRC would provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing identification number in compliance with Federal Highway Regulations (23 CFR Part 655). The toll-free number would be answered 24 hours per day by ARRC personnel.